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Production of Water Cress

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U. S. DEPARTMENT OF AGRICULTURE

PRODUCTION OF WATER CRESS

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Water cress is a hardy aquatic perennial, thriving in small, gently flowing streams, shallow pools, or ditches. It is easily grown and deserves more attention by both home and market gardeners, as its agreeable pungent flavor makes it a desirable salad and garnishing plant. Commercial production of water cress is confined mainly to four eastern and one southern State. From May 1 to December 1 the northern section, with Martinsburg, W. Va., as its center, supplies the market, while the region around Huntsville, Ala., provides the greater part of the winter supply. The growing and shipping of water cress has now assumed carload proportions with special precooling, icing, and shipping facilities located in the heart of each of the important producing sections. The commercial production of water cress, which started a few years ago as a minor enterprise, has now become an industry of considerable importance in the regions that are especially adapted for its culture. It should not be assumed, however, that the production of water cress offers unlimited opportunity for expansion, as present production is adequate for market demands.

Conditions Suitable for Water Cress

This vegetable may be produced under a wide variety of conditions, but it is grown commercially in sections where warm limestone springs abound. The best product comes from clear, running water or about springs where it can be watered frequently. It is grown to a considerable extent in beds or pools supplied with water from large springs, especially mountain springs in limestone regions. The temperature of such water is a distinct protection to the crop in winter. A rapidly moving stream or one the bed of which is subject to overflow during floods should not be chosen, neither should stagnant water be used. It is essential that the water be fit for drinking, because epidemics may occur when streams are polluted, and the leaves become contaminated with disease germs. When flowing water is not to be had, the cress may be grown in a moist, shady place in the garden where it can be watered frequently. It is sometimes grown in coldframes into which water can be run.

Establishing the Beds

When the crop is to be grown on a large scale, the exercise of some engineering skill is required in preparing the beds, as they must be graded so that all parts of the bed will be covered by gently flowing water. Shallow ditches or canals should be dug, varying from 16 to 20 feet in width and having a fall of about 2 inches in each 100 feet.

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Where the contour of the ground is such that one or more long canals cannot be constructed, a succession of pools may be utilized. These should be at different levels so that the water will flow from one to the other. From 1 to 3 inches of rich compost is placed in the bottom of the ditches or beds, after which the crop may be planted.

Early spring is the best time for planting water cress, and it may be started either from seed or from cuttings. The former method is often employed in securing plants for starting a large planting. A small shallow trench is dug, and compost is placed in the bottom. Since the seed is small, it should be mixed with dry sand and sown broadcast and then lightly covered. The soil should be kept moist until the plants show their first leaves, when just enough water is let in to cover the plants. When the seedlings are well established,

FIGURE 1.—Rooted cuttings of water cress.

they may be pulled out in tufts and transplanted to the permanent canals or ponds. Where only a small planting is to be made, the seedlings may be grown in a carefully tended plot or the seed may be sown directly in the permanent beds. Where the plants are transplanted the strongest clumps of seedlings should be selected and pricked off a foot apart, using a dibble. Then enough water is let into the canals or ponds to cover the plants. After the cress becomes well established more water may be turned in, but the depth should be increased only as fast as the growth of the plants

will justify. Small plantings also may be started by planting cuttings taken from established plants. The cuttings root readily if planted in moist soil or sand and kept well watered. Figure 1 shows the rooted cuttings.

Care of Crop

The plants soon spread naturally to cover a large area; and, when once established in the colder regions of the country, the crop will persist indefinitely. In the warmer regions, however, the planting may have to be renewed after several years. Harvesting should be delayed until the plants have grown strong enough to yield a crop of leaves. The leaves may be gathered at all seasons of the year, except in frosty or freezing weather, when the beds should be flooded sufficiently to submerge the plants entirely.

Harvesting and Marketing

Marketable water cress consists of young, tender shoots and leaves. A man equipped with hip boots and a suitable knife cuts the tender shoots and leaves by grasping them in one hand and cutting with the other. The stems of the plant, generally about 4 to 5 inches long, are tied in a compact bunch before being released from the grasp. In some cases, shippers pack the cress in berry cups instead of tying it in bunches, but whatever the plan followed, the product should be packed in barrels or crates and iced before shipment. Finely crushed or "snow" ice should be used for mixing with the cress in the barrels or crates.

Forcing

The forcing of water cress is practiced to a limited extent. It is accomplished by growing the plants in cool, moderately-lighted greenhouses with or without benches. The seed is sown either in the place where the crop is to mature or in a seedbed and the plants transplanted later. Cress is sometimes grown under the greenhouse benches, where it is watered by the moisture which drips from above. The essentials for greenhouse production of water cress are a rich, retentive soil, abundant moisture, a cool temperature, moderate lighting, and the use of lime where the water used does not contain lime in solution.

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